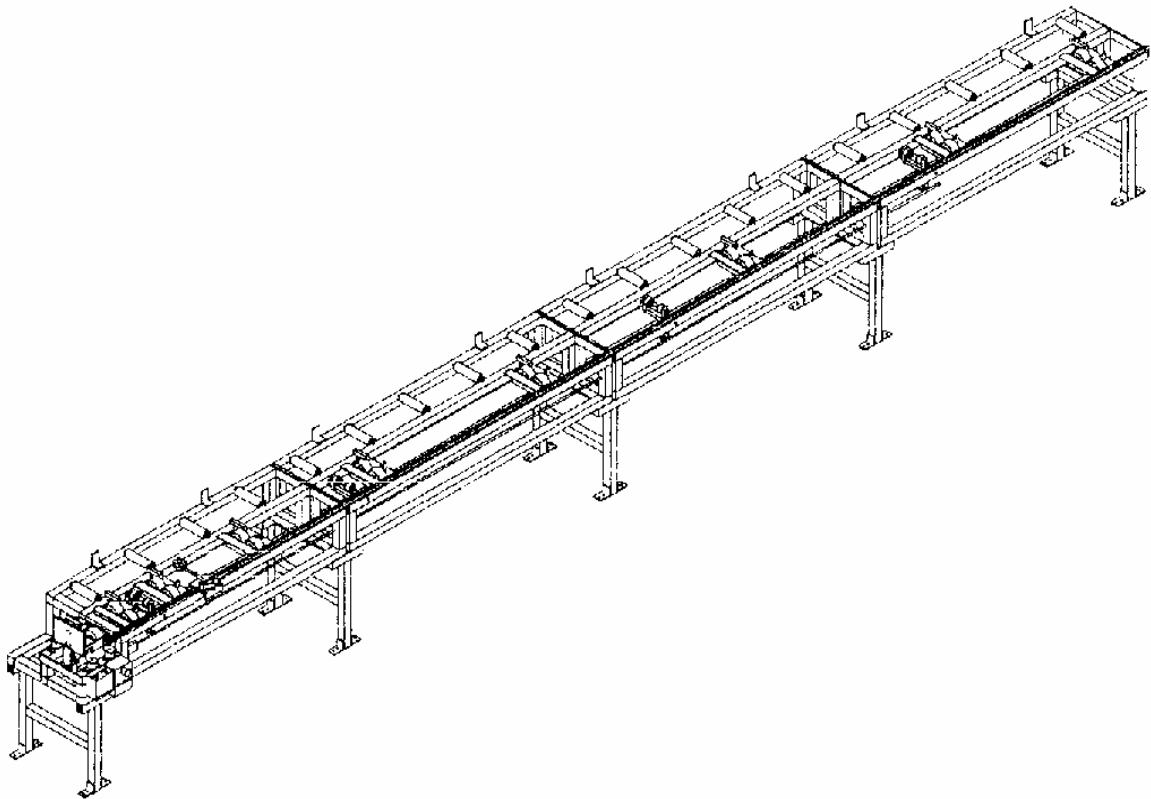


Quickcut

OPERATION MANUAL



North Alabama Pipe Corporation

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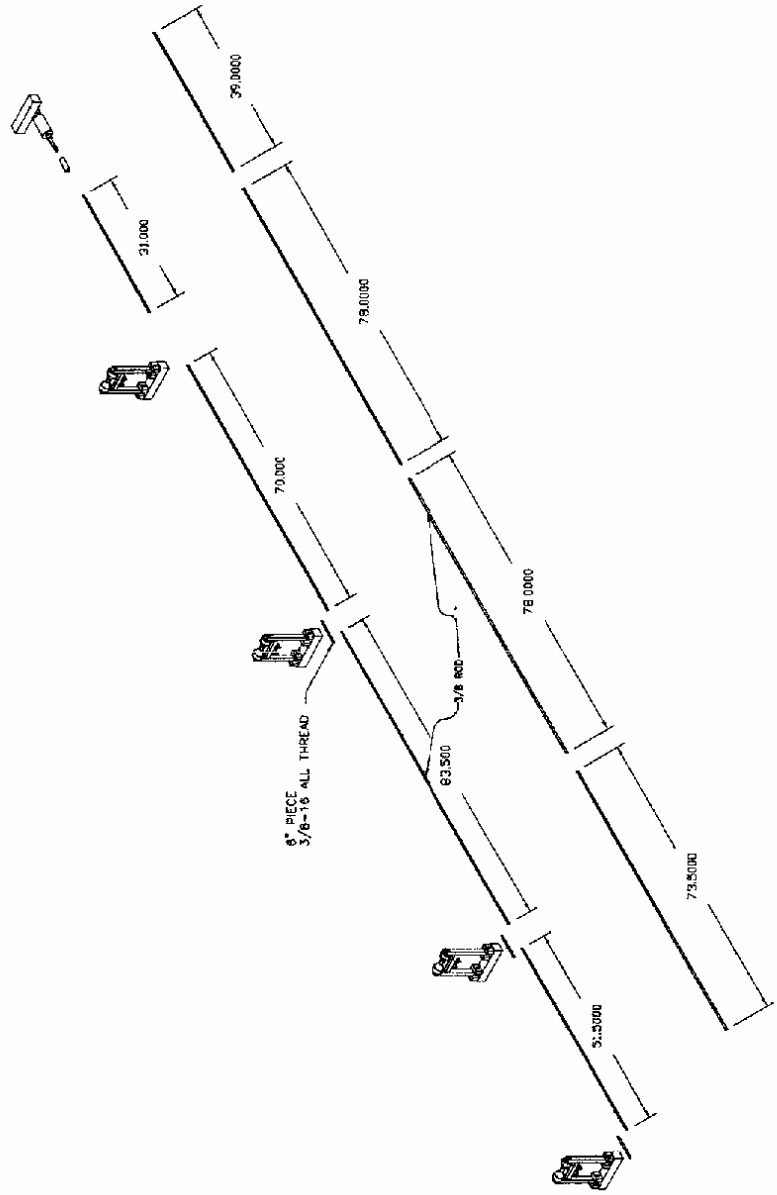


FIGURE #2

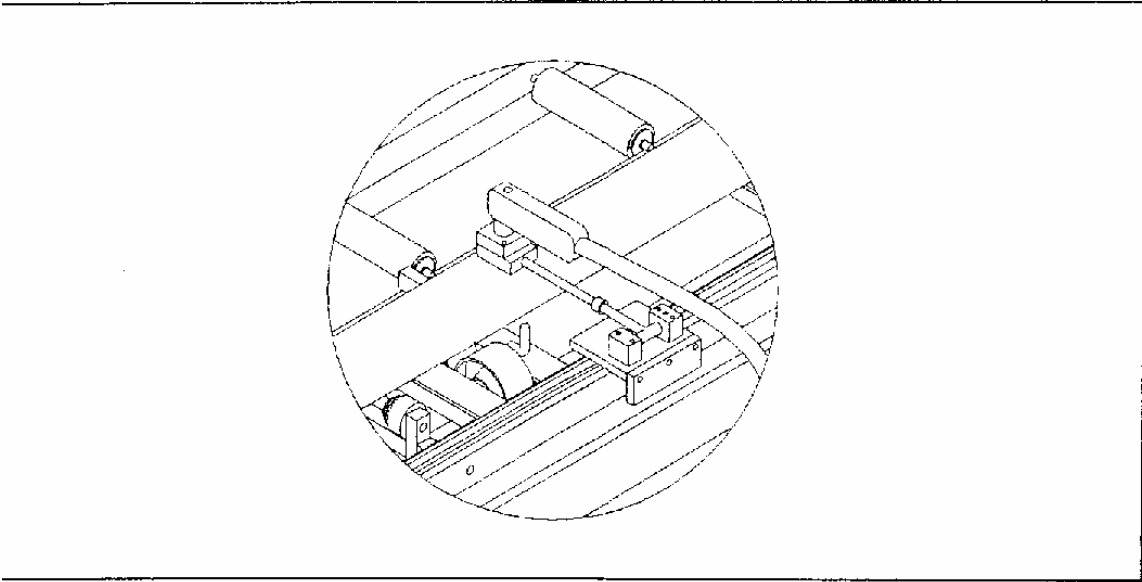


FIGURE # 3

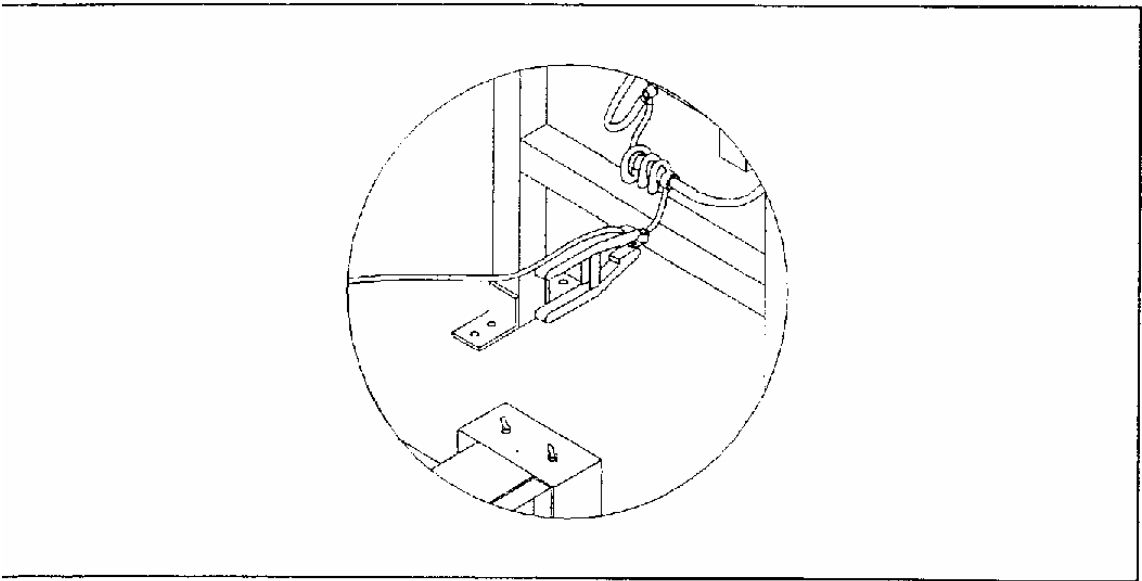


FIGURE #4

N. A. P. QUICK CUT OPERATION INSTRUCTIONS

I CONTROL BOX OPERATION

- A. The three-position toggle switch controls the mode of operating the rotation of the pipe.
 - 1. "Automatic" Mode. The rotation of the pipe will begin and end with the initiation and ceasing of the plasma burn. The plasma cut must actually begin before the pipe will start to rotate and the pipe will stop rotating when the plasma cut of the pipe ceases. (When the "auto-start" assembly of the "Quick-Cut" senses electrical current in the plasma unit's ground cable, pipe rotation begins. When there is no current, pipe rotation stops.
 - 2. "Off" Mode. This mode cuts off the power to the rotation motor.
 - 3. "Manual" Mode. This mode will cause the pipe to rotate constantly until the switch is placed in the "Off" or "Automatic" position.
- B. The two-position toggle switch controls the time delay for pipe penetration of the plasma energy stream. This switch should be set for "Schedule 40" for schedule 40 pipe and on "Schedule 10" for schedule 10 or thinner wall thicknesses.

II. SPEED CONTROL BOX OPERATION

- A. The "On" - "Off" toggle switch controls the electrical power to the rotation motor. It must be in the "On" position for the machine to operate.
- B. The Speed Control dial sets the rotation speed of the pipe. The speed should be set at approximately 55 for schedule 10 pipe and at approximately 30 for schedule 40 pipe. Slight increases or decreases in speed settings may improve the plasma cut depending on actual pipe thicknesses and coatings.

III. PIPE CLAMPING AND ROLLER LIFT OPERATION

The horizontal rod within the frame which runs the entire length of the machine, pneumatically operates the pipe clamping and roller-lift system simultaneously. When the rod is activated the lift rollers retract and the drive clamp bearing is actuated holding the pipe to the drive rollers. When the rod is operated again, the lift rollers rise and the drive clamp bearing releases the pipe.

The "pneumatic roller-lift system" on the "Quick-Cut" machine lifts the pipe clear of the cutting table. The free-wheeling rollers allow for easy insertion and removal of the pipe into the power head. This is especially important on long pieces of large diameter pipe. The roller lift system is raised when the power head clamp is released and lowered when the clamp is activated. In short, when raised, these rollers provide for easy longitudinal movement of the pipe prior to and just after the pipe is cut.

IV MAINTENANCE SCHEDULE

A. Weekly

1. Remove build-up of dust, oil and dirt from the machine.
2. Check red wheels to insure they remain slightly higher than the metal rotation wheels.
3. Check drive belt to insure there is no more than 1/8" play in its tension.

B. Every 6 - 8 Weeks

Grease the metal rotation wheels

C. Precautions

1. Do not allow plasma sparks near the red wheels as they will wear out prematurely.
2. Make sure you select proper speed and pipe schedule settings on the control box for the particular pipe you will be cutting.

V ADJUSTING THE RED WHEELS

- A. Unplug the machine.
- B. Insert a pipe section in the power head.
- C. Loosen the socket head screws in all four (4) of the item #4026. (See Quick-Cut Head Parts List Drawing)
- D. Pull the head upward until the red wheels fit snug against the pipe.
- E. Level the head section.
- F. Tighten the socket head screws in "C" above.

VI ADJUSTING THE DRIVE BELT

- A. Unplug the machine.
- B. Loosen the two 5/8" bolts and the two 5/16" bolts in item #34.
- C. Apply downward pressure on #34 until there is no more than 1/8" play in the belt.
- D. Tighten bolts in "A" above.
CAUTION: Do NOT over tighten 5/8" bolts.

VII REPLACING THE CLAMP BEARING OR GROUND BRUSH

- A. Remove 3/8" bolt from Item #4024 or 4102. (See Pipe Clamps Parts List Drawing)
- B. Remove #904 or 905 (bearing) and/or ground brush.
- C. Replace #904 or 905 (bearing) and/or ground brush.
CAUTION: A ground brush MUST remain behind the bearing.

VIII REPLACING THE DRIVE BELT, PULLEY OR RED WHEELS

- A. Unplug the machine.
- B. Remove the belt cover plate (4 screws)
- C. Remove the Multi-Drive cover plate and disconnect the motor lead (2 wires).
- D. Remove the air cylinder - one screw in front and two in the rear mount.
- E. Remove the mounting bolt in the top of each of the rubber supports.
- F. Remove power head from machine.
- G. Loosen belt adjustment bolts.
- H. Remove red wheel bolts.
- I. Replace belt and/or pulley and/or red wheels.
- J. Tighten belt adjustment bolts.
- K. Replace power head into machine.
- L. Replace mounting bolts on rubber support.
- M. Replace air cylinder.
- N. Reconnect motor leads to Multi-Drive.
- O. Replace the belt cover plate.

IX AUTOMATIC OPERATION SEQUENCES

1. Turn the air plasma unit on.
2. Set the air plasma unit to 40 amps.
3. Test for 80 lbs. of air pressure to the air plasma unit.
4. Make sure the ground cable of the air plasma unit is clamped to the lug provided on the "Quick Cut" ground cable.
5. Make sure the "Auto-Start" sensor has the ground cord wrapped around it.

6. Move the mode selection toggle switch to "Automatic".
- 5-
7. Move the "Schedule 40-Schedule 10" toggle switch to the desired wall thickness.
8. Switch the D.C. box marked "Multi-Drive" to on.
9. Adjust the control knob on the "Multi-Drive" to the desired speed. (See recommended settings for each pipe size and wall thickness.)
10. Place the pipe on the roller lifts and slide the pipe end against the end block in the power head. Activate the clamping system by pulling the horizontal rod in the frame which will engage the clamp and lower the lift-rollers simultaneously.
11. Move the torch guide to the desired cut-off position as indicated by the built in tape measure and tighten its thumb screw to secure its position.
12. Insert the plasma torch into the torch guide and activate the plasma unit for one full rotation of the pipe.
13. Remove the plasma torch and operate the rod which disengages the clamp and raises the roller lifts.
14. Remove the pipe and repeat the process of #10 - 13 until all the required pipe has been cut to the proper lengths.

RECOMMENDED REPLACEMENT PARTS

	Part #
Small Pipe Bearing (1-1/4-1-1/2" pipe)	6201
Large Pipe Bearing (2 - 8" pipe)	6203
Brushes (for clamp bearing)	BBR 1702
Drive Belt	480-BM-30
Torch Guide Roller Bearings	1602

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DRAWINGS & PARTS LIST

PRODUCTS BY N.A.P.

GENERAL INFORMATION

DESCRIPTION

The Quickcut from N.A.P. is a revolutionary new pipe cut off machine that utilizes plasma technology in the process of pipe cutting. Pipe sizes from 1-1/4" to 8" with light to schedule 40 wall thickness can easily be cut to length within seconds. It requires little effort and produces a flawless result. The standard lifting system will allow for easy pipe movement forward and backwards by the operator. The Index Chuck, by N.A.P. is an accessory that adds to the convenience of the Quickcut if it is to be used as a work station for hole cutting or welding. The Index Chuck allows for pipe rotation in 90 degree increments.

DIMENSION

The following dimensions are standard for all Quickcut units. (MAJOR DIMENSIONS ONLY)

OVERALL LENGTH FROM END TO END.....28'-0"
OVERALL WIDTH FROM SIDE TO SIDE.....22'-1/2"
OVERALL HEIGHT FROM FLOOR TO PIPE REST.....37'-1/4"
OVERALL WEIGHT.....aprox: 1200 lbs.

INSTALLATION

UNPACKING EQUIPMENT

Remove the selafane wrapping from the contents and pallet. Inspect the contents for any damages that might have occurred during shipping. Make sure that all items on the packing list are accounted for and identified. Any claims for loss or damage that might have occurred during transit must be filed by the purchaser with the carrier. When requesting information concerning this equipment, it is essential that the model description, serial number and/or part number of the equipment be supplied.

LOCATION SPECIFICATION

- Refer to major dimensions for shop layouts.
- Locate in well ventilated area.
- Maintain a 4' walk way to the front for the operator access.
- Provide room enough for easy access to head section.
- Locate away from damp or saturated areas.

FINAL CHECK LIST

1. Check to make sure the entire Quickcut is absolutely level.
2. Check to see that the air supply is on and properly connected to the air valve found at the head section.
3. Check to make sure the plasma unit is properly grounded at the head section. Also make sure the plug cord for the plasma unit is plugged into the proper outlet.
4. Check to see that the power plug cord leading from the electrical box is plugged into a 110 volt outlet.

INSTALLATION

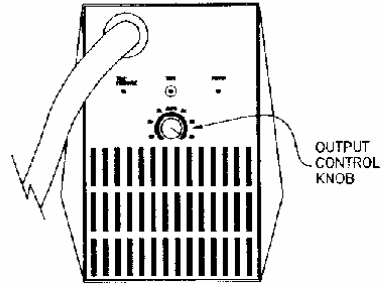
ASSEMBLY

1. Remove the legs from the pallet and set them off to one side.
2. Remove the box of screws and bolts, taking out the twenty 3/8-16 jacking screws.
3. Insert the 3/8-16 jacking screws into the feet of the legs.
4. Mark the area on which the Quickcut will sit. (see fig. #1)
5. Layout the Quickcuts' sections in order on the floor near the marked area. (see fig. #1)
6. Place legs #1 and #2 on the marked area, at the head section end. (see fig. #1)
7. Lift the head section up onto legs #1 and #2.
8. Drop the 3/8-16x5 bolts through the bottom rail of the frame into the legs. Loosely fasten the nuts on.
9. Place leg #3 in position.
10. Lift section #2 up onto the legs. Push this section into the head section until the dowel pins fit. (may be slightly difficult to fit).
11. Place the 1/2" bolts through the holes beside the dowel pins. Loosely fasten the nuts on.
12. Continue steps 9-11 until all sections are in place.
13. Tighten all the 3/8-16x5 bolts that connect the frame and the legs. Also tighten all the 1/2" bolts that fasten section to section.
14. Level the machine by tightening and loosening the 3/8-16 jacking screws in the feet. (Make sure the Quickcut is level along the the front and along the top.)
15. Install the 3/8" actuator and lifter rods. (see fig. #2)
16. Install the trolley. (see fig. #3)
17. Connect the plug cord to a 110 outlet.
18. Connect the air.
19. Connect the ground cord of the plasma unit. (see fig. #4)

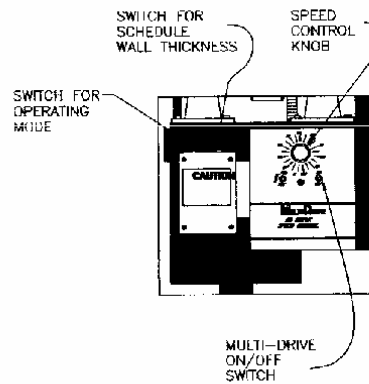
OPERATION

PROCEDURES

1. Turn the MAX 600 plasma unit on.
2. Using the output control knob, select 40 AMP'S.

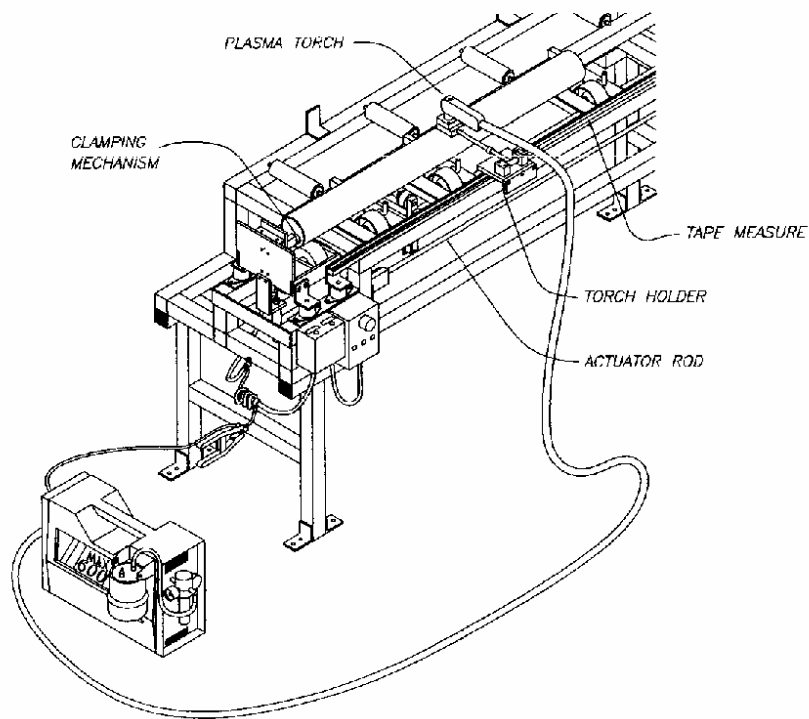


3. Move the first switch on the small grey electrical box marked "caution" from off to the desired operating mode.
4. Move the second switch on the small grey electrical box marked "caution" to the desired wall schedule.
5. Switch the black DC box marked "Multi-Drive" to on.
6. Adjust the control knob on the black DC box marked "Multi-Drive" to the desired speed. (refer to "settings" on page 10.)



OPERATION

7. Take the selected pipe and slide it up flush with the clamping system.
8. Activate the clamping system by pulling the actuator rod away from the head section.
9. Position the torch holder in the desired location using the metal tape measure as a guide.
10. Using the wing nut and the thumb screw, tighten the torch holder in place so that there is no horizontal or vertical movement.
11. Insert the plasma torch.
12. Press the button on the back of the plasma torch.
13. Once the cut has been made and the plasma torch is disabled, pull the the actuator rod back toward the head section. This action will release the pipe for removal.



OPERATION

SETTINGS

The **Quickcut** from *N.A.P.* is uniquely designed for cutting pipe with schedule 10 to schedule 40 wall thickness.

1. For schedule 10 wall thickness set the plasma unit to **40 amps**. Set the DC speed control between 50 and 65.
2. For schedule 40 wall thickness set the plasma unit to **40 amps**. Set the DC speed control between 20 and 45.
3. The small gray electrical box marked "caution" controls the operating modes.
 - The "AUTO" Selection will result in pipe rotation only when the plasma torch is cutting the pipe.
 - The "MANUAL" Selection will result in constant pipe rotation regardless if the plasma torch is cutting the pipe. (*This method is for marking*)
 - The "OFF" selection disables pipe rotation regardless if the plasma torch is activated.

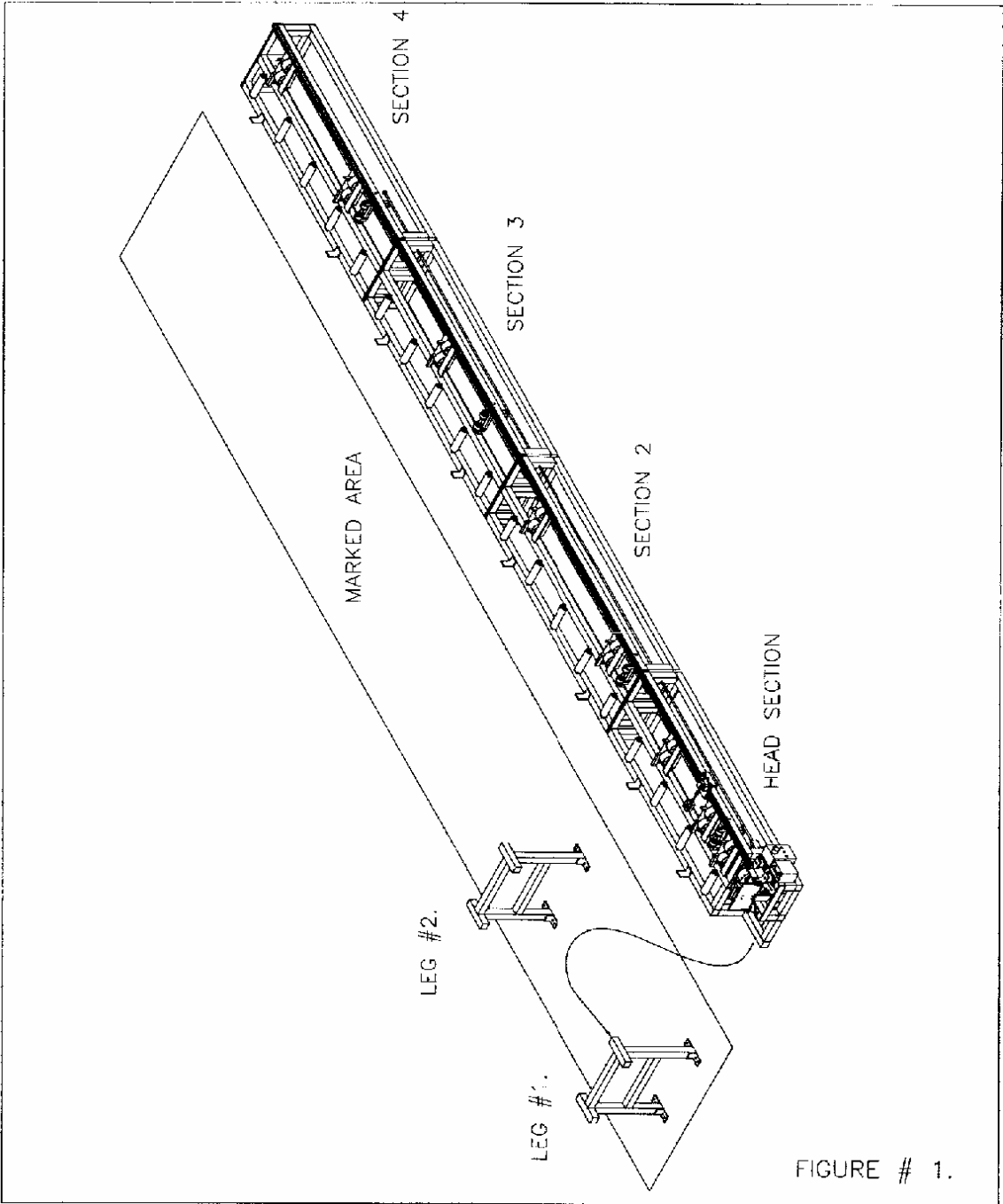


FIGURE # 1.